(i) A rate of 0.05 per 1,000 engine hours for ETOPS up to and including 120 minutes.

(ii) A rate of 0.03 per 1,000 engine hours for ETOPS beyond 120-minutes up to and including 207 minutes in the North Pacific Area of Operation and up to and including 180 minutes elsewhere.

(iii) A rate of 0.02 per 1,000 engine hours for ETOPS beyond 207 minutes in the North Pacific Area of Operation and beyond 180 minutes elsewhere.

(2) Within 30 days of exceeding the rates above, the certificate holder must submit a report of investigation and any necessary corrective action taken to its CHDO.

(j) *Engine condition monitoring.* (1) The certificate holder must have an engine condition monitoring program to detect deterioration at an early stage and to allow for corrective action before safe operation is affected.

(2) This program must describe the parameters to be monitored, the method of data collection, the method of analyzing data, and the process for taking corrective action.

(3) The program must ensure that engine-limit margins are maintained so that a prolonged engine-inoperative diversion may be conducted at approved power levels and in all expected environmental conditions without exceeding approved engine limits. This includes approved limits for items such as rotor speeds and exhaust gas temperatures.

(k) *Oil-consumption monitoring.* The certificate holder must have an engine oil consumption monitoring program to ensure that there is enough oil to complete each ETOPS flight. APU oil consumption must be included if an APU is required for ETOPS. The operator's oil consumption limit may not exceed the manufacturer's recommendation. Monitoring must be continuous and include oil added at each ETOPS departure point. The program must compare the amount of oil added at each ETOPS departure point with the running average consumption to identify sudden increases.

(l) *APU in-flight start program.* If the airplane type certificate requires an APU but does not require the APU to run during the ETOPS portion of the flight, the certificate holder must develop and maintain a program acceptable to the FAA for cold soak in-flight start-and-run reliability.

(m) *Maintenance training.* For each airplane-engine combination, the certificate holder must develop a maintenance training program that provides training adequate to support ETOPS. It must include ETOPS specific training for all persons involved in ETOPS maintenance that focuses on the special nature of ETOPS. This training must be in addition to the operator's maintenance training program used to qualify individuals to perform work on specific airplanes and engines.

(n) *Configuration, maintenance, and procedures (CMP) document.* If an airplane-engine combination has a CMP document, the certificate holder must use a system that ensures compliance with the applicable FAA-approved document.

(o) *Procedural changes.* Each substantial change to the maintenance or training procedures that were used to qualify the certificate holder for ETOPS, must be submitted to the CHDO for review. The certificate holder cannot implement a change until its CHDO notifies the certificate holder that the review is complete.

[Doc. No. FAA–2002–6717, 72 FR 1880, Jan. 16, 2007, as amended by Amdt. 121–329, 72 FR 7348, Feb. 15, 2007; Amdt. 121–329, 72 FR 26541, May 10, 2007; Amdt 121–339, 73 FR 33881, June 16, 2008]

§ 121.375 Maintenance and preventive maintenance training program.

Each certificate holder or person performing maintenance or preventive maintenance functions for it shall have a training program to ensure that each person (including inspection personnel) who determines the adequacy of work done is fully informed about procedures and techniques and new equipment in use and is competent to perform his duties.

§ 121.377 Maintenance and preventive maintenance personnel duty time limitations.

Within the United States, each certificate holder (or person performing maintenance or preventive maintenance functions for it) shall relieve each person performing maintenance

or preventive maintenance from duty for a period of at least 24 consecutive hours during any seven consecutive days, or the equivalent thereof within any one calendar month.

§ 121.378 Certificate requirements.

(a) Except for maintenance, preventive maintenance, alterations, and required inspections performed by a certificated repair station that is located outside the United States, each person who is directly in charge of maintenance, preventive maintenance, or alterations, and each person performing required inspections must hold an appropriate airman certificate.

(b) For the purposes of this section, a person *directly in charge* is each person assigned to a position in which he is responsible for the work of a shop or station that performs maintenance, preventive maintenance, alterations, or other functions affecting aircraft airworthiness. A person who is *directly in charge* need not physically observe and direct each worker constantly but must be available for consultation and decision on matters requiring instruction or decision from higher authority than that of the persons performing the work.

[Doc. No. 6258, 29 FR 19210, Dec. 31, 1964, as amended by Amdt. 121–21, 31 FR 10618, Aug. 9, 1966; Amdt. 121–286, 66 FR 41116, Aug. 6, 2001]

§ 121.379 Authority to perform and approve maintenance, preventive maintenance, and alterations.

(a) A certificate holder may perform, or it may make arrangements with other persons to perform, maintenance, preventive maintenance, and alterations as provided in its continuous airworthiness maintenance program and its maintenance manual. In addition, a certificate holder may perform these functions for another certificate holder as provided in the continuous airworthiness maintenance program and maintenance manual of the other certificate holder.

(b) A certificate holder may approve any aircraft, airframe, aircraft engine, propeller, or appliance for return to service after maintenance, preventive maintenance, or alterations that are performed under paragraph (a) of this section. However, in the case of a major repair or major alteration, the work must have been done in accordance with technical data approved by the Administrator.

[Doc. No. 10289, 35 FR 16793, Oct. 30, 1970]

§ 121.380 Maintenance recording requirements.

(a) Each certificate holder shall keep (using the system specified in the manual required in § 121.369) the following records for the periods specified in paragraph (c) of this section:

(1) All the records necessary to show that all requirements for the issuance of an airworthiness release under § 121.709 have been met.

(2) Records containing the following information:

(i) The total time in service of the airframe.

(ii) Except as provided in paragraph (b) of this section, the total time in service of each engine and propeller.

(iii) The current status of life-limited parts of each airframe, engine, propeller, and appliance.

(iv) The time since last overhaul of all items installed on the aircraft which are required to be overhauled on a specified time basis.

(v) The identification of the current inspection status of the aircraft, including the times since the last inspections required by the inspection program under which the aircraft and its appliances are maintained.

(vi) The current status of applicable airworthiness directives, including the date and methods of compliance, and, if the airworthiness directive involves recurring action, the time and date when the next action is required.

(vii) A list of current major alterations to each airframe, engine, propeller, and appliance.

(b) A certificate holder need not record the total time in service of an engine or propeller on a transport category cargo airplane, a transport category airplane that has a passenger seat configuration of more than 30 seats, or a nontransport category airplane type certificated before January 1, 1958, until the following, whichever occurs first:

(1) March 20, 1997; or